

## MEN AND BOOKS

## Even the Gods Had Goitre

GERALD D. HART, M.D., F.R.C.P.[C], F.R.N.S., F.A.C.P., *Toronto*

**A** PART from brief references by Pliny,\*<sup>1</sup> Vitruvius, Juvenal and Ulpian to goitre in alpine regions, historical reviews of medicine divulge little about the incidence of goitre in the ancient world.<sup>2,3</sup> In many instances gaps in knowledge of early disease may be filled by study of various art forms. Coinage, as a source of such information,<sup>4</sup> has been relatively neglected.

The diagnosis of goitre from numismatic material requires exclusion of two common anatomical features: a prominent horizontal fold in the cricothyroid region and a prominent sternomastoid muscle. The horizontal prominence in the cricothyroid region is in most portraits not related to obesity, and its current clinical counterpart is not seen. This fold is also present on ancient Greek statuary, and one may speculate



Fig. 1.—Roman emperor Domitian (81-96 A.D.), showing prominent sternomastoid muscle.



Fig. 3.—Athena from Corinth with goitre.

All major cities of the Greek world produced coins upon which appropriate local symbols were used in order to identify their place of origin. Early issues frequently portrayed the predominant local deity whose portrait was taken from existing statues or from stylization of artistic models; later coins portrayed reigning monarchs.

that it represents an anatomical feature which has disappeared. (Ancient statues are not a good source of early goitre material; this may possibly be related to the artist's purpose of portraying idealistic human form.)

A prominent sternomastoid muscle frequently is displayed on warrior emperors and kings. This is seen on coins and statues (Fig. 1).



Fig. 2.—Athena from Corinth with horizontal prominence.



Fig. 4.—Athena from Athens (522-430 B.C.).

From the Department of Hematology, Toronto East General Hospital.

Presented at a meeting of the Section of History of Medicine, Academy of Medicine, Toronto.

\*The various kinds of water in the vicinity of the Alps being apt to produce disease in the human throat. (Guttur homini tantum et suis intumescit, aquarium quae potantur plerumque vitio.<sup>3</sup>)

Reprint requests to: Dr. Gerald D. Hart, Department of Hematology, Toronto East General Hospital, Toronto 13, Ontario.

Athena was one of the most favoured deities. There is no satisfactory derivation for her name although the Greek for nurse has been suggested.<sup>5</sup> Medically she was known for giving Aesculapius power to restore the dead, but her



Fig. 5.—Athena from Athens (220-197 B.C.) with goitre.



Fig. 6.—Athena from Athens (220-197 B.C.) with goitre.



Fig. 7.—Apollo from Myrina (1st-2nd century B.C.) with a normal neck.



Fig. 8.—Apollo from Myrina (1st-2nd century B.C.) with horizontal prominence.



Fig. 9.—Apollo from Myrina (1st-2nd century B.C.) with goitre.



Fig. 10.—Amazon of Cyme (B.C. 190) with normal neck.



Fig. 11.—Amazon of Cyme (B.C. 190) with normal neck.

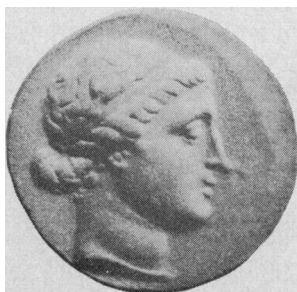


Fig. 12.—Amazon of Cyme (B.C. 190) with goitre.

principal roles were as warrior goddess and as a protectress of heroes. She appears frequently on the coinage of Corinth and Athens. Fig. 2 shows the Corinthian Athena as an attractive, youthful goddess, and also illustrates the neck ridge, and Fig. 3 shows a swelling in the thyroid region. The Athena of Athens appears stern and authoritative in coins of the third century B.C.

which show her with a swelling in the thyroid region (Figs. 4, 5 and 6).

Apollo was a popular deity and was associated with the sun, Delphi and medicine; however, his duties became so numerous that he abdicated his medical role. Coins of Myrina in Aeolis of the 1st and 2nd centuries B.C. show an interesting series: series I, a normal neck (Fig. 7);



Fig. 13.—Hera from Elis (B.C. 362-312) with normal neck and with goitre.

series II, the longitudinal ridge (Fig. 8); and series III, a goitre (Fig. 9). It is of interest that the portrait in each varies, and one must assume that for each series a different model was used.



Fig. 14.—Tyche from Seleucia with goitre.

Model changes in coin series are also illustrated by the following portraits of the Amazon of Cyme: series I and II (Figs. 10 and 11) show a normal neck, and series III (Fig. 12) shows a goitre. The Amazons were a race of legendary heroic female warriors who removed their right breasts ("a" means "without"; "mazos" means



Fig. 15.—Cleopatra, wife of Antiochus VIII (B.C. 125), with goitre.

\*A reviewer's note from Dr. Calvin Wells:  
A keen diagnostic exploiter  
Over coins would frequently loiter.  
One day he said, "Blimey!  
A cutie from Kyme  
Has swapped her right breast for a goitre."



Fig. 16.—Antiochus VII (B.C. 138), bullneck and probable goitre.

"breast") in order to draw a bow more readily. The Amazon race founded many towns, including Cyme of Troas. The coins illustrated date from the 2nd century B.C.\*

Hera (the celestial virgin) presided over all phases of female existence and was goddess of



Fig. 17.—Antiochus (B.C. 227), adolescent goitre.

marriage and fertility. It is appropriate that she should have a goitre, especially as she was portrayed on coins of Elis which was located in the mountainous regions of the Peloponnesos. Fig. 13 shows two 4th-century B.C. portraits of Hera; one shows a normal neck and the other shows a goitre.



Fig. 18.—Arsinoe, wife of Ptolemy VIII (B.C. 169).

Tyche was the goddess of good fortune. From Seleucia in Galatea there are two examples of her portrayed as a matronly woman with a goitre (Fig. 14).



Fig. 19.—Nicomedes II.

Royalty in the ancient world also had goitres. Cleopatra, wife of Antiochus VIII, King of Syria, had a goitre (Fig. 15). Antiochus VII had a bull neck and probably a goitre (Fig. 16). Antiochus, son of Seleucus III of Syria, appears to

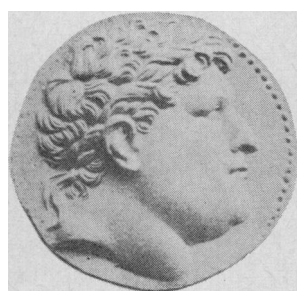


Fig. 20.—Philatereus.

have had an adolescent goitre (Fig. 17). Arsinoe, wife of Ptolemy VIII of Egypt (Fig. 18), and Nicomedes II, King of Bithynia (Fig. 19), had goitres. Philatereus, the eunuch who became King of Pergamum, had soft flabby features



Fig. 21.—Female bust from Euboea.

which would suggest that the neck swelling was due to goitre rather than a prominent sternomastoid (Fig. 20). An unidentified female bust from Euboea also shows a goitre (Fig. 21).

The Greeks invented the gods in order to explain the unknown. They had human form and attributes, and their goitres must have reflected a common condition among their mortal

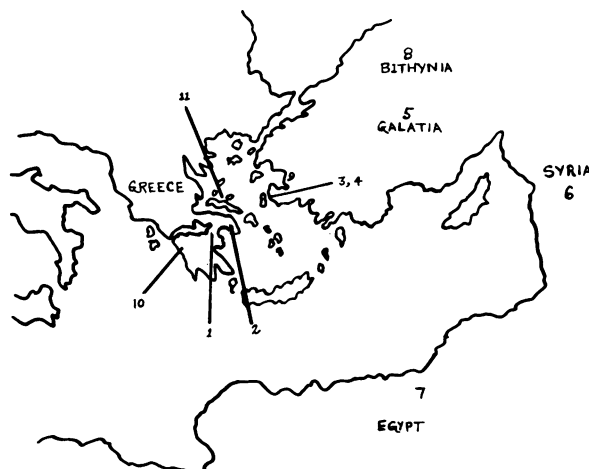


Fig. 22.—Key to geographic location of coin illustrations: (1) Corinth; (2) Athens; (3) Myrina; (4) Cyme; (5) Seleucia; (6) Syria; (7) Egypt; (8) Bithynia; (9) Pergamum; (10) Elis; (11) Euboea.

followers. Fig. 22 shows the geographic location of the coin illustrations. Whether the occurrence of goitre at these sites can be correlated with the past or present iodine content of the soil is a challenge for the epidemiologists! It is of great interest that McCarrison includes these areas in his sketch map showing the distribution of endemic goitre.<sup>6</sup>

Although goitre is not common on ancient coins, its presence gives us some of the earliest recorded examples of the condition. The fact that even the gods had goitre reflects the prevalence in the general population, and its occurrence even within royalty suggests a universal rather than a socioeconomic condition.

The author is indebted to the trustees of the British Museum for permission to reproduce illustrations 2-17 and 20-21 and to B. A. Seaby Ltd., London, for permission to reproduce illustrations 18 and 19. The photographs were prepared by Mr. P. Milligan, Department of Medical Photography, Toronto East General Hospital.

#### ADDENDUM

Since this article was submitted for publication, the earliest and clearest example of goitre has been noted.<sup>7</sup> From Syracuse, there is a coin series portraying Arethusa (nymph of the fresh-water spring at Syracuse) which shows a variety of different portraits. One of these from 425 B.C. shows an obvious goitre.

#### REFERENCES

1. BOSTOCK, J. AND RILEY, H. T., editors: The natural history of Pliny, Vol. 6, Henry G. Bohn, London, 1857.
2. MERKE, P.: *Proc. Roy. Soc. Med.*, 53: 995, 1960.
3. HIRSCH, A.: Handbook of geographic and historical pathology, vol. 2, translated by C. Creighton, New Sydenham Society, London, 1885.
4. London, British Museum, Department of Coins and Medals: A catalogue of the Greek coins in the British Museum, London, 1873.  
Italy, R. S. Poole, 1873;  
Sicily, R. S. Poole, 1876;  
Macedonia, B. V. Head and P. Gardner, 1879;  
Thrace, B. V. Head and P. Gardner, 1877;  
Thessaly to Aetolia, P. Gardner, 1883;

Central Greece, B. V. Head, 1884;  
Attica, Megaris, Aegina, B. V. Head, 1888;  
Corinth and Colonies, B. V. Head 1889;  
Peloponnesus, P. Gardner, 1887;  
Crete and Aegean Islands, W. Wroth, 1886;  
Pontus, Paphlagonia, Bithynia, Bosphorus, W. Wroth, 1889;  
Mysia, W. Wroth, 1892;  
Troas, Aeolis, Lesbos, W. Wroth, 1894;  
Ionia, B. V. Head, 1892;  
Caria and Islands, B. V. Head, 1897;  
Lydia, G. F. Hill, 1901;  
Phrygia, B. V. Head, 1906;  
Lycia, Pamphylia and Pisidia, G. F. Hill, 1897;  
Lycaonia, Isauria, Sicilia, G. F. Hill, 1900;  
Cyprus, G. F. Hill, 1904;

Galatia, Cappadocia, Syria, W. Wroth, 1899;  
Seleucid Kings of Syria, P. Gardner, 1878;  
Phoenicia, G. F. Hill, 1910;  
Palestine, G. F. Hill, 1914;  
Arabia, Mesopotamia, Persia, G. F. Hill, 1922;  
Parthia, W. Wroth, 1903;  
Ptolemaic Kings of Egypt, R. S. Poole, 1883;  
Alexandria and the Nomes, R. S. Poole, 1892;  
Cyrenaica, E. S. G. Robinson, 1927.

5. GUIRAND, F., editor: Larousse encyclopedia of mythology, Prometheus Press, New York, 1959.
6. MCCARRISON, R.: The etiology of endemic goitre, John Bale Sons and Danielsson, Ltd., London, 1913.
7. KRAAY, C. M.: Greek coins, Harry N. Abrams Inc., New York, 1966.

## AEQUANIMITAS

### THESE BAUBLES

It was my intention to be forehanded for once and to prepare in advance a story on the brand-new mace which is to be the birthday gift of the Past Presidents to The Canadian Medical Association. However, I have become diverted to certain interesting bypaths of the history of maces, a subject which was until recently unknown territory to me. I was aware that Oliver Cromwell had said some hard things about 'that bauble'. I had seen the Sergeant-at-Arms carrying the Canadian parliamentary mace at the slope, but that represented about the extent of my knowledge.

It appears likely that the mace is a lineal descendant of the club used by our remote ancestors to stun and subdue their wives, their enemies, and the fauna on which they subsisted. At any rate, the mace in something like its current configuration was used in battle as a weapon of offence by medieval bishops, in place of the sword, to conform to the canonical rule which forbade priests to shed blood. By gradual evolution the mace became a ceremonial symbol, at first used to protect the Monarch's person and subsequently to represent his authority in legislative assemblies. In a constitutional monarchy such as ours it is the symbol of the Speaker's authority from the Crown and is lent to him by the Sovereign, who resumes possession of it when Parliament is prorogued.

It was some time after 1150 that the mace was first taken into use in British parliamentary practice, and the mace now used in the House of Commons dates from the Restoration in 1660. Its immediate predecessor which was in use throughout the sessions held during the Civil War (1642-1649) was the one which was the subject of Cromwell's words when he dispersed the Long Parliament in 1653. He "bid one of his Soldiers to take away that 'Fool's Bauble', the Mace, and staid himself to see all the Members out of the House, himselfe the last of them, and then caused the Doors of the House to be shut up."<sup>1</sup> His speech in the House to the Rump

Parliament which followed in 1654 left little doubt as to his view on the parliamentarians of those turbulent times. "It is not fit that you should sit here any longer! . . . you shall now give place to better men." I suggest these words as the text for tomorrow morning's editorial.

Although it is quite irrelevant, I can't resist a further quote from Cromwell which has always delighted me. In a letter to the General Assembly of the Church of Scotland in August 1650 he pleaded, "I beseech you, in the bowels of Christ, think it possible you may be mistaken." What a hope!

Cromwell acted logically in that legislative bodies in the British parliamentary tradition are officially in session only when the Speaker is in his chair and the mace is on the table. Committee sessions are denoted when a chairman presides and the mace is placed in brackets below the table.

Lt.-Col. D. V. Currie, V.C., the Sergeant-at-Arms of the Canadian House of Commons, has provided much interesting information on the history of maces in this country and the protocol for their employment. He furnished the following account from Beauchesne<sup>2</sup> which intrigues me from three points of view. It gives a glimpse of our stormy parliamentary history, it mentions a distinguished colleague in a new role, and it provides a close paraphrase of Cromwell's words.

With the union of Upper and Lower Canada in 1841 a new silver and gold mace was ordered and obtained in 1845 for the Parliament of the Two Canadas. Its adventures started shortly: "When rioters burned down the Parliament Building in Youville Square, Montreal, in April 1849, the mace was rescued in interesting circumstances. The House was sitting when fire broke out and Speaker Morin immediately left the Chair. One of the rioters took his place and seeing that the mace was still on the Table, he said to Alfred Perry, one of the leaders of the mob: 'Take that thing away.' Perry approached the mace, but the Sergeant-at-Arms interfered and drew his sword. Perry hit him with an axe